

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants	: Bruce H. HANSON et al.	Group Art Unit: 3653
Appln. No.	: 10/630,754	Examiner: Hageman, M.
Filed	: July 31, 2003	Confirmation No.: 2023
For	: SEQUENCING SYSTEM AND METHOD OF USE	

REPLY BRIEF UNDER 37 C.F.R. 41.41(a)(1)

Commissioner for Patents
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Randolph Building
401 Dulany Street
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Sir:

This Reply Brief is in response to the Examiner's Answer dated May 16, 2007, the period for reply extending until July 16, 2007.

In the Examiner's Answer, the rejection of claims 1-20 under 35 USC §102(b) as anticipated by De Leo (U.S. Pat. No. 6,107,588) is maintained. Also, the rejection of claims 1-20 under 35 USC §102(b) as anticipated by Walach (U.S. Pat. No. 6,274,836) is maintained.

Appellants note this Reply Brief is being filed under 37 C.F.R. §41.41(a)(1) and is directed to the arguments presented in the Examiner's Answer, and therefore must be entered unless the final rejection is withdrawn in response to the instant Reply Brief. With regard to this Reply Brief, Appellants note it is addressing points made in the Examiner's Answer and not repeating the arguments set forth in the Appeal Brief.

POINTS OF ARGUMENT

First Issue

The Examiner maintains the position that De Leo discloses *in the second mode, the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase*, as recited in claim 1. The Examiner appears to be of the opinion that De Leo's collections Ca and Cb constitute the recited output groups. More specifically, the Examiner explains:

[D]uring the first pass sort output groups A and B are assigned. At column 5 lines 10-26 De Leo discusses the second sorting pass in which each feeder is dedicated to a specific collection and feeds only to a subset (Wa or Wb) of the N outputs. Therefore during the second pass there are output groups (Wa and Wb or Ca and Cb) that remain constant between the first pass phase and the second pass phase.

...

Appellant is arguing the assignment of the physical bin locations to the specific output groups. Examiner contends that the claims does not require this level of continuity. The claim only requires a plurality of output bins. The rest of the claim is directed to "output groups" and the claim requires "...such that the groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase." There is nothing that requires the physical bin assignments remain constant or that precludes reassignment or reorganization of the physical bin locations between phases. Therefore, De Leo anticipates the claims in question as during the first phase groups are established (Ca and Cb) and during the second phase the groups are maintained.

(Examiner's Answer, pages 13-14)

Appellants respectfully disagree with the contention that De Leo's collections Ca and Cb constitute the claimed output groups, and submit the Examiner is applying an improper interpretation to the term "output groups." The claimed "output groups" refers to output groups of output bins. De Leo does not disclose output groups of output bins that remain constant between the first pass phase and the second pass phase.

Claim 1 recites the clause: *the plurality of input feeding devices feeding the product to a plurality of output bins of the plurality of output groups*. From this, it is clear that (i) output bins are associated with the output groups, (ii) the input feeding devices are what feed the product, and (iii) the input feeding devices feed the product to the output bins.

Claim 1 further recites the clause: *in the second mode, the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase*. This clause recites the placement of products to output groups. By reading both clauses together and within the context of the entire claim, it is clear that the latter clause is directed to a constraint on the placement of product in output bins of output groups. Therefore, the recitation *the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase* necessarily refers to output groups of output bins, and not, as the Examiner contends, to mere output groups of product. For this reason, the claimed invention clearly requires output groups of output bins.

Appellants argument that the recited “output groups” refer to output groups of output bins is further reinforced by the language of the specification of the instant invention. For example, in the following passage of Appellants’ specification, the output groups are explicitly described as output groups of output bins:

In an embodiment, a grouping of contiguous output bins 106 may be designated for any number of respective carrier routes or groupings of product. In one example, four output groups 106a, 106b, 106c and 106d of output bins are each associated with respectively assigned input feeding devices 102a, 102b, 102c and 102d. In this particular embodiment, 90 output bins are associated with each output group for a total of 360 output

bins. Although 90 output bins are illustrated herein, any number of output bins may be associated with each output group.
(page 8, lines 1-10) [emphasis added].

Furthermore, in the following passage of Appellants' specification, the first phase is described in which feeding devices are described as feeding product to output bins associated with output groups:

FIG. 2 shows a general schematic view of a first phase of sorting using the sequencing system 100. In the first pass phase, the product for any number of routes such as 1 through n routes is presented to the input feeding devices in any order to any input feeding device. The products are then fed through the input feeding devices and deposited into an output bin associated with one of the output groups based on a sort key or code ...
(page 8, lines 11-16) [emphasis added].

Even further, in the following passage of Appellants' specification, the second phase is described in which feeding devices are described as feeding product to output bins associated with output groups. Moreover, the constraint of output groups between the first phase and the second phase is discussed:

FIG. 3 shows a general schematic view of a second phase of sorting using the sequencing system 100. Each input feeding device is assigned a particular output group (e.g., four groups). Now, in a second pass phase, the product of the first output group will be fed through the first input feeding device to the output bins of the first output group, the product of the second output group will be fed through the second input feeding device to the output bins of the second output group, the product of the n output group will be fed through the n input feeding device to the output bins of the n output group, etc, all having a code read by a respective OCR of the input feeding devices. In this manner, the product is delivered to a respective output group, now in sequence. In one embodiment, the system is placed under a constraint to maintain the output groups between the first and second pass phase.
(page 9, lines 4-16) [emphasis added].

Also, in the following passage of Appellants' specification, the first phase is described in which products are directed to output bins of output groups:

In step 404, the product is fed and deposited to the specific output bin based on the sort key or associated code. That is, the OCR will read the sort key or associated code and the controller "C" will direct the product to a particular output bin of a particular output group, via the transporting system. All input feeding device have complete access to all output bins of each of the output groups in this phase such that no segregation is required. Additionally, the assigned groupings may be maintained for the following second pass phase.

(page 11, lines 12-20) [emphasis added].

Lastly, in the following passage of Appellants' specification, the second phase is described in which the constraint forces products to be directed to output bins in an output group:

In step 410, a constraint of the sequencing system now forces the product to its respective output group and only to those outputs. In other words, input feeding device 1 feeds product to output group 1 and the output bins in that group.

(page 12, lines 3-6) [emphasis added].

It is clear from a fair reading of the above-noted passage of the specification that the claimed "output groups" refer to output groups of output bins, and not to groupings of product, as the Examiner contends. As such, the rejection based upon De Leo is improper because the Examiner's interpretation of the term "output groups" is inconsistent with the claimed invention and the specification. As the following passages of the MPEP make clear, the Examiner is not free to disregard the meaning given to a term in the specification simply for the purpose of conforming the applied art to a recited claim term:

During patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. (MPEP §2111) [emphasis added].

...

[T]he words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). (MPEP §2111.01) [emphasis added].

...

The ordinary and customary meaning of a term may be evidenced by a variety of sources, including “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Phillips v. AWH Corp.*, 415 F.3d at 1314, 75 USPQ2d at 1327.

(MPEP §2111.01) [emphasis added].

...

If extrinsic reference sources, such as dictionaries, evidence more than one definition for the term, the intrinsic record must be consulted to identify which of the different possible definitions is most consistent with applicant's use of the terms. *Brookhill-Wilk 1*, 334 F. 3d at 1300, 67 USPQ2d at 1137; see also *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250, 48 USPQ2d 1117, 1122 (Fed. Cir. 1998) (“Where there are several common meanings for a claim term, the patent disclosure serves to point away from the improper meanings and toward the proper meanings.”)

(MPEP §2111.01) [emphasis added].

Moreover, Appellants note that looking to the specification for the purpose of interpreting or defining a recited claim term is not an improper attempt to read limitations from the specification into the claims. Since the term “output group” is explicitly recited in the claims in conjunction with the placement of product, it is clear that the recited invention is directed to output groups of output bins. The specification supports and provides guidance in interpreting the claimed terms. More specifically, MPEP §2111 notes:

reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from ‘reading limitations of the specification into a claim,’ to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969)

For all of the above-discussed reasons, Appellants submit that the Examiner is improperly interpreting the recited term “output groups.” When the term “output groups” is

interpreted consistent with the specification and the other language in the claims, De Leo does not disclose *in the second mode, the control constrains placement of the products to output groups assigned in the first pass phase such that the groupings of the products to the assigned output groups remain constant between the first pass phase and the second pass phase*, as recited in claim 1. Instead, in De Leo, there are no “output groups” that remain constant between the first pass and the second pass. Since the Examiner has failed to demonstrate, or even assert, that De Leo discloses output groups of output bins that remain constant between the first phase and the second phase, the rejection is improper and should be reversed and remanded to the Examiner for allowance.

Second Issue

The Examiner maintains the position that De Leo discloses *the control maintains a same grouping of output bins between the first pass phase and the second pass phase*, as recited in claim 7. More specifically, the Examiner repeats the assertion that De Leo’s collections Ca and Cb read on the claimed feature, and adds the assertion that

the mere fact the machine feeds the products to the same output bin locations in both the first and second pass is sufficient to anticipate claim 7 regardless of which products are directed to specific bins.
(Examiner’s Answer, page 15).

Appellants respectfully disagree for the following reasons.

As discussed above, the claimed “output groups” refer to groups of output bins. Therefore, the Examiner is applying an improper interpretation to the claim language. Moreover, claim 7 recites the control maintains a same grouping of output bins between the first pass phase and the second pass phase. Thus, claim 7 explicitly refers to a grouping of output bins. This is clearly not shown by De Leo. The only grouping of output bins in De Leo is groups Wa and Wb,

shown in the second phase (Fig. 1b). However, the groupings of output bins Wa and Wb do not exist in the first pass phase. Because De Leo does not disclose a grouping of output bins in the first phase, Appellants submit that De Leo cannot arguably disclose a same grouping of output bins maintained between the first pass phase and the second pass phase. Therefore, the rejection is improper and should be reversed and remanded to the Examiner.

Third Issue

The Examiner maintains the position that De Leo discloses *a control allowing all input feeding devices of the plurality of input feeding devices complete access to all output groups of the plurality of output groups during the first pass phase and assigning contiguous output bins to predetermined output groups of the plurality of output groups and associating each of the predetermined output groups with respective input feeding devices such that the predetermined output groups remain constant between the first pass phase and the second pass phase*, as recited in claim 13. More specifically, the Examiner repeats the assertion that collections Ca and Cb constitute output groups that remain constant between the first phase and the second phase. Moreover, the Examiner asserts that the recitation of contiguous output bins refers to the continuity from the first pass to the second pass. Appellants respectfully disagree.

As discussed above, the claimed “output groups” refer to groups of output bins. Therefore, the Examiner is applying an improper interpretation to the claim language. Moreover, claim 13 recites assigning contiguous output bins to predetermined output groups of the plurality of output groups. FIG. 1 of the present invention shows contiguous output bins of output groups. For example, bins 1 through 90 are assigned to group 106a, and bins 91 through 180 are assigned to group 106b, etc. Thus, the bins of the first group 106a are contiguous in both number (1 through 90) and spatial orientation (Fig. 1 shows no bins from other groups in the area occupied

by group 106a). Notwithstanding the Examiner's incorrect interpretation of this recitation, De Leo simply does not show output groups of contiguous bins that remain constant from the first pass to the second pass. Therefore, the rejection is improper and should be reversed and remanded to the Examiner.

Fourth Issue

The Examiner maintains the position that Walach discloses a plurality of input feeding devices each randomly receiving products from a stream of product. More specifically, the Examiner contends

Walach discloses "providing a multiplicity of articles to be sorted," [and] that the articles to be sorted are being moved from one place to another through out the entire process and therefore there is a stream of product as it is moved throughout the sorting process.

(Examiner's Answer, page 20).

Appellants respectfully disagree.

Appellants note that the Examiner's explanation amounts to an assertion of inherency.

MPEP §2112 provides the following guidance regarding rejections based upon inherency:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

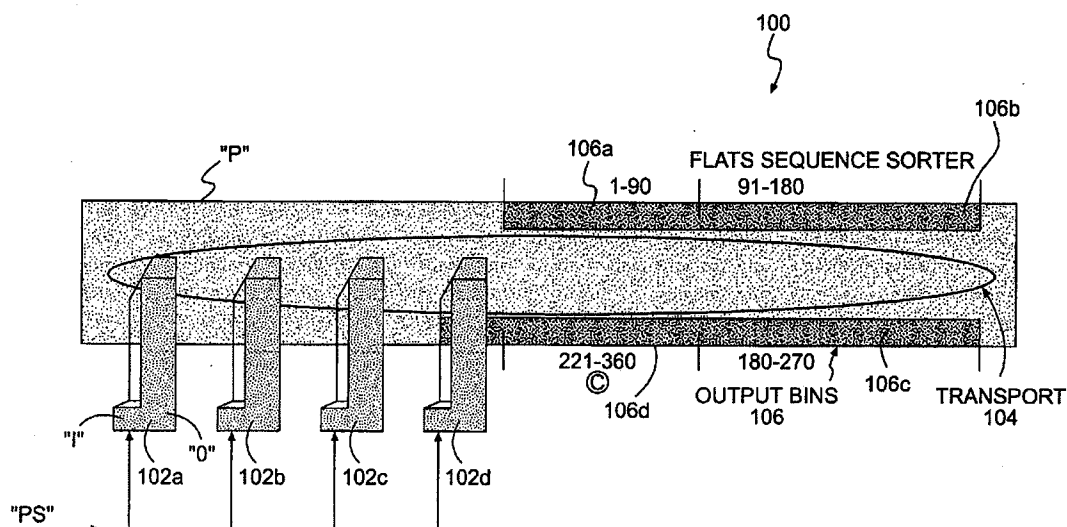
[emphasis added].

...

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination

that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) [emphasis added].

Appellants respectfully submit that the Examiner’s proffered reasoning that “the articles to be sorted are being moved from one place to another through out the entire process and therefore there is a stream of product as it is moved throughout the sorting process” is mere speculation, without any basis in fact or technical reasoning, as required by MPEP §2112. In fact, the Examiner’s explanation does not even address the language of the claim. That is, the claimed invention (for example, independent claim 1) explicitly recites that the input feeders each randomly receive product from a stream of product. As such, each input feeding device must receive product from the same stream of product. The Examiner does not address the claimed relation between the input feeders and the stream of product. Instead, the Examiner merely surmises that there is a stream of product somewhere in Walach. However, the claimed invention recites that the input feeders receive product from a stream of product. This is demonstrated by FIG. 1 of the present invention, reproduced below:



From the above figure of the present invention, it is clearly seen that the input feeding devices 102a-d each receive product from a stream of product “PS”. That is, a single stream of product randomly provides mail pieces to each of the four input feeders. However, the Examiner’s assertion of inherency does not address the claim language because it only discusses a stream of product, and does not discuss how all of the plural input feeding devices receive product from a stream of product. Since the Examiner’s explanation does not address the actual claim language, Appellants respectfully submit that it cannot provide adequate basis in fact and/or technical reasoning to reasonably support the conclusion of inherency. In any event, Walach simply does not describe or imply a stream of product that feeds all input bins 10.

Moreover, regarding the “randomly receiving” language, the Examiner contends

the articles are in no particular order prior to the first pass sort and that simply splitting a random pile of articles approximately in half creates two piles that are still random. Therefore, the splitting action does not prevent the articles from, “being randomly assigned to the input feeding devices.”

(Examiner’s Answer, pages 20-21).

Appellants respectfully disagree.

The Examiner’s assertion directly contradicts the Examiner’s own explanation regarding the stream of product. Here, the Examiner alludes to a “random pile of articles” in Walach. However, Appellants submit that a pile of articles does not constitute a stream of product, such that splitting a random pile of articles does not read on input feeding devices each randomly receiving products from a stream of product. Contrary to the claimed invention, Walach merely teaches that, before the first pass, the articles are divided approximately equally between the two input bins. This does not constitute, and appears to teach away from, a plurality of input feeding devices randomly receiving product from a stream of product, as recited in the claimed invention.

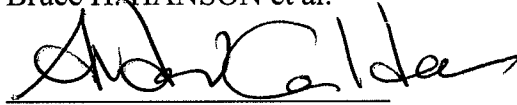
Therefore, Walach does not disclose all of the features of the claimed invention, and the rejection is improper and should be reversed and remanded to the Examiner.

CONCLUSION

For the reasons expressed above, Appellants respectfully request that the grounds of rejection advanced by the Examiner be reversed. Appellants further request that the application be returned to the Examining Group for prompt allowance.

The undersigned authorizes the charging of any necessary fees, including any extensions of time fees required to place the application in condition for allowance by Examiner's Amendment, to Deposit Account No. 19 - 0089 in order to maintain pendency of this application.

Respectfully submitted,
Bruce H. HANSON et al.

A handwritten signature in black ink, appearing to read "Andrew M. Calderon", is written over a horizontal line.

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